

**RECEIVED**  
**CENTRAL FAX CENTER**

MAY 31 2006

**HAMRE, SCHUMANN,  
MUELLER & LARSON, P.C.**  
AN INTERNATIONAL INTELLECTUAL PROPERTY LAW FIRM

FAX TRANSMISSION May 31, 2006

TO:

Examiner:  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

FROM: Douglas P. Mueller

OUR REF: 14434.0083USWO

TELEPHONE: (612) 455.3800

Total pages, including cover letter: 16

PTO FAX NUMBER: 571.273.8300

If all pages are NOT received, please call us at 612.455.3800 or fax us at 612.455.3801.

Title of Document: **Request for Corrected Filing Receipt, Marked-up  
copy of the Filing Receipt, English translation of  
FORM PCT/TB/338**Applicant: YOSHII  
Serial No.: 10/541,174  
App. Filed: June 30, 2005  
Group Art No.: 1722

Please charge any additional fees or credit overpayment to Deposit Account No. 50-3478. Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers, if appropriate.

By: Name: Douglas P. Mueller  
Reg. No.: 30,300

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on the date shown below.

Ralynn Wilhelm

  
Signature5.31.06  
Date225 SOUTH SIXTH STREET • SUITE 2650 • MINNEAPOLIS • MN 55402  
TEL 612.455.3800 • FAX 612.455.3801  
WWW.HSML.COM • MAIL@HSML.COM

**RECEIVED**  
**CENTRAL FAX CENTER**

**MAY 31 2006**

S/N 10/541,174

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: YOSHII  
Serial No.: 10/541,174      Group Art Unit: 1722  
Filed: June 30, 2005      Docket No.: 14434.0083USWO  
Title: FULLERENE CRYSTAL AND METHOD FOR PRODUCING SAME

CERTIFICATE UNDER 37 CFR 1.6(d)

I hereby certify that this paper is being transmitted by facsimile to the U.S. Patent and Trademark Office on May 31, 2006.

By: 

Name: Ralynn Wilhelm

REQUEST FOR CORRECTED FILING RECEIPT

Commissioner for Patents  
P.O.Box 1450  
Alexandria, VA 22313-1450

Dear Commissioner:

Enclosed is a photocopy of the filing receipt from the United States Patent and Trademark Office in the above-identified application showing requested corrections.

The Assignment for Published Patent Application information is missing.

Please insert NIPPON SHEET GLASS COMPANY, LIMITED, TOKYO, JAPAN.

The Foreign Application information is incorrect.

Please replace [20003=004126 10/01/2003] with 2003-004126 01/10/2003.

Please replace the date of [10/01/2003] with 01/10/2003.

Correction of the records of the United States Patent and Trademark Office and issuance of a corrected filing receipt are respectfully solicited.

Respectfully submitted,

Hamre, Schumann, Mueller & Larson, P.C.  
225 South Sixth Street, Suite 2650  
Minneapolis, MN 55402  
(612)-455-3800



Dated: May 31, 2006

By 

Douglas P. Mueller  
Reg. No. 30,300

DPM/rkw



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPL NO.	FILING OR 371 (C) DATE	ART UNIT	FIL FEE RECD	ATTY DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/541,174	08/30/2005	1722	1200	14434.83USWO	7	24	1

CONFIRMATION NO. 4537

52835  
HAMRE, SCHUMANN, MUELLER & LARSON, P.C.  
P.O. BOX 2902-0902  
MINNEAPOLIS, MN 55402

## FILING RECEIPT



\*OC000000017805781\*

Date Mailed: 01/11/2006

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Tetsuro Yoshii, Tokyo, JAPAN;

ASSIGNMENT FOR PUBLISHED PATENT APPLICATION  
NIPPON SHEET GLASS COMPANY, LIMITED, TOKYO, JAPAN  
Power of Attorney: The patent practitioners associated with Customer Number 52835.

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/JP04/00087 01/08/2004

## Foreign Applications

JAPAN [20003=004126 10/01/2003] 2003 - 00146 01/10/2003  
JAPAN 2003-004127 [10/01/2003] 01/10/2003  
JAPAN 2003-004128 [10/01/2003] 01/10/2003

Projected Publication Date: 04/20/2006

Non-Publication Request: No

Early Publication Request: No

## Title

Fullerene crystal and method for producing same

**Preliminary Class**

117

**PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process simplifies the filing of patent applications on the same invention in member countries, but does not result in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

**LICENSE FOR FOREIGN FILING UNDER****Title 35, United States Code, Section 184****Title 37, Code of Federal Regulations, 5.11 & 5.15****GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject

matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

## PATENT COOPERATION TREATY

PCT/JP2004/000087

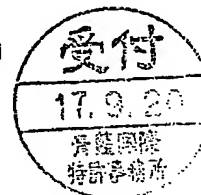
From the INTERNATIONAL BUREAU

**PCT**

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis.3(c) and 72.2)

To:

KAMADA, Koichi  
7th Fl., TOMOE MARION BLDG.  
4-3-1, Nishitenma, Kita-ku, Osaka-shi  
Osaka 5300047  
JAPON



Date of mailing (day/month/year) 15 September 2005 (15.09.2005)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference FNS03007WO	
International application No. PCT/JP2004/000087	International filing date (day/month/year) 08 January 2004 (08.01.2004)
Applicant NIPPON SHEET GLASS COMPANY, LIMITED et al	

## 1. Transmittal of the translation to the applicant.

- ☒ The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).
- ☐ The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

## 2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

## 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Masashi Honda

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference FNS03007WO	<b>FOR FURTHER ACTION</b> See item 4 below	
International application No. PCT/JP2004/000087	International filing date (day/month/year) 08 January 2004 (08.01.2004)	Priority date (day/month/year) 10 January 2003 (10.01.2003)
International Patent Classification (IPC) or national classification and IPC C30B 29/66, C01B 31/02		
Applicant NIPPON SHEET GLASS COMPANY, LIMITED		

- This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
- This REPORT consists of a total of 10 sheets, including this cover sheet.  
  
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.
- This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input checked="" type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application
- The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 740 14 35 Form PCT/IB/373 (January 2004)	Date of issuance of this report 02 September 2005 (02.09.2005)
	Authorized officer  Masashi Honda  Telephone No. +41 22 338 70 10

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

Translation

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference <b>FNS03007WO</b>		Date of mailing (day/month/year) <b>01-06-2004</b>
FOR FURTHER ACTION See paragraph 2 below		
International application No. <b>PCT/JP 2004/000087</b>	International filing date (day/month/year) <b>08-01-2004</b>	Priority date (day/month/year) <b>10-01-2003</b>
International Patent Classification (IPC) or both national classification and IPC <b>C30B 29/66, C01B 31/02</b>		
Applicant <b>NIPPON SHEET GLASS COMPANY, LIMITED</b>		

## 1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input checked="" type="checkbox"/> | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application  |

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

## 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

Form PCT/ISA/237 (cover sheet) (April 2005)



<b>WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY</b>		International application No.
<b>Box No. I</b>	<b>Basis of the report</b>	
<p>1. With regard to the language, this opinion has been established on the basis of:</p> <p><input type="checkbox"/> the International application in the language in which it was filed</p> <p><input type="checkbox"/> the translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rule 12.3(a) and 23.1(b)).</p> <p>2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:</p> <p>a. type of material</p> <p><input type="checkbox"/> a sequence listing</p> <p><input type="checkbox"/> table(s) related to the sequence listing</p> <p>b. format of material</p> <p><input type="checkbox"/> on paper</p> <p><input type="checkbox"/> in electronic form</p> <p>c. time of filing/furnishing</p> <p><input type="checkbox"/> contained in the international application as filed</p> <p><input type="checkbox"/> filed together with the international application in electronic form</p> <p><input type="checkbox"/> furnished subsequently to this Authority for the purposes of search</p> <p>3. <input type="checkbox"/> In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.</p> <p>4. Additional comments:</p>		

Form PCT/ISA/237 (Box No. I) (April 2005)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP 2004/00087

Box No. IV

Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has, within the applicable time limit:
- ☒ paid additional fees
  - ☐ paid additional fees under protest and, where applicable, the protest fee
  - ☐ paid additional fees under protest but the applicable protest fee was not paid
  - ☐ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
- ☐ complied with
  - ☒ not complied with for the following reasons:

Refer to the Supplemental Box.

4. Consequently, this opinion has been established in respect of the following parts of the international application:
- ☐ all parts
  - ☒ the parts relating to claims Nos. 1-19, 22-24

Form PCT/ISA/237 (Box No. IV) (April 2005)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY		International application No.
Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	
1. Statement		
Novelty (N)	Claims 10-19	YES
	Claims 1-9, 22-24	NO
Inventive step (IS)	Claims 11-19	YES
	Claims 1-10, 22-24	NO
Industrial applicability (IA)	Claims 1-19, 22-24	YES
	Claims	NO
2. Citations and explanations:		
<p>Document 1: JP 2003-001600 A (President of the University of Tokyo), 08 January 2003</p> <p>Document 2: W. KRATSCHMER et al., "Solid C<sub>60</sub>: a new form of carbon," NATURE, 1990, Vol. 347, pages 354 to 357</p> <p>Document 3: Joel M. HAWKINS et al., "A crystallographic analysis of C<sub>60</sub> (buckminsterfullerene)," J. CHEM. SOC. CHEM. COMMUN., 01 June 1991, No. 11, page 775</p> <p>Document 4: K. MIYAZAWA et al., "C<sub>60</sub> nanowhiskers formed by the liquid-liquid interfacial precipitation method," J. MATER. RES., 2002, Vol. 17, No. 1, pages 83 to 88</p> <p>Document 5: K. MIYAZAWA et al., "Formation of iodine-doped C<sub>60</sub> whiskers by the use of liquid-liquid interfacial precipitation method., J. MATER. RES., 2002, Vol. 17, No. 9, pages 2205 to 2208</p> <p>Claims 1 to 9 and 22</p> <p>The inventions that are set forth in claims 1 to 9 and 22 lack novelty in the light of document 1 cited in the international search report.</p>		

Form PCT/ISA/237 (Box No. V) (April 2005)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

Box No. V

Reasoned statement under Rule 43bis.1(x)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

Document 1 (claim 7) discloses a method wherein a "solution, which contains a first solution in which fullerene has been dissolved, and a second solution, which has with a fullerene dissolving potential lower than that of the aforementioned first solution, are combined so as to form a liquid-liquid surface between the aforementioned solution and the aforementioned second solution, and carbon fibers are precipitated out at said liquid-liquid surface," and specifically discloses a situation wherein xylene, which is a benzene derivative in which two or more of the hydrogen atoms in the benzene ring have been substituted, is used as the first solution (refer to claim 12) and a situation wherein n-butyl alcohol or the like is used as the second solution (refer to claim 14).

In addition, document 1 discloses the feature of obtaining nano-wires that contain fullerene crystals by using xylene as the first solution; therefore, the xylene in the invention that is disclosed in document 1 can be considered to be m-xylene.

## Claim 10

The invention that is set forth in claim 10 does not involve an inventive step in the light of document 1 cited in the international search report.

The nano-wires comprising fullerene crystals which are produced by means of the invention that is disclosed in document 1 have a fibrous form; therefore, it would be easy for a person skilled in the art to conceive of configuring a non-woven

Form PCT/ISA/237 (Box No. V) (April 2005)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

fabric from said fibrous fullerene crystals.

## Claims 11 to 15

The invention that is set forth in claims 11 to 15 is not disclosed in any of the documents that are cited in the international search report; therefore, the invention in question is novel and involves an inventive step.

Specifically, the feature in the inventions that are set forth in claims 11 to 15 wherein flake-like fullerene crystals are obtained by using a benzene derivative in which the ortho positions have been substituted or the like as the first solution is not disclosed in documents 1 to 5, which are considered to be the most closely related prior art documents, and even a person skilled in the art could not easily have conceived of the feature in question in the light of documents 1 to 5.

## Claims 16 to 19

The invention that is set forth in claims 16 to 19 is not disclosed in any of the documents that are cited in the international search report; therefore, the invention in question is novel and involves an inventive step.

Specifically, the feature in the inventions that are set forth in claims 16 to 19 wherein particulate fullerene crystals are obtained by using a benzene derivative in which the ortho positions have been substituted or the like as the first solution is not disclosed in documents 1 to 5, which are considered to be the most closely related prior

Form PCT/ISA/237 (Box No. V) (April 2005)

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY		International application No.
Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	
<p>art documents, and even a person skilled in the art could not easily have conceived of the feature in question in the light of documents 1 to 5.</p> <p>Claim 23</p> <p>The invention that is set forth in claim 23 lacks novelty in the light of document 2 cited in the international search report.</p> <p>Document 2 (fig. 1) illustrates that flake-like fullerene crystals were obtained, and said flake-like fullerene crystals are considered to have an average thickness of approximately 100 nm to 10 <math>\mu</math>m. Therefore, the substances that are set forth in claim 23 can be considered to be the same as the substances that are disclosed in document 2.</p> <p>Claim 24</p> <p>The invention that is set forth in claim 24 lacks novelty in the light of document 2 or document 3 cited in the international search report.</p> <p>Document 2 (fig. 1) illustrates that stellate fullerene crystals were obtained, and document 3 indicates that polyhedral fullerene crystals with the dimensions 1.5 mm X 1.5 mm X 0.6 mm were obtained. Therefore, the substances that are set forth in claim 24 can be considered to be the same as the substances that are disclosed in document 2 or the substances that are disclosed in document 3.</p>		

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP 2004/00087

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.  
Continuation of: Box IV

The present international application includes five inventions that do not conform to the requirement of unity of invention.

Main invention:	Claims 1 to 4, 5 to 10 and 22
Second invention:	Claims 11 to 15 and 23
Third invention:	Claims 16 to 19 and 24
Fourth invention:	Claim 20
Fifth Invention	Claim 21

The feature wherein the "first solution" comprises a benzene derivative in which two or more of the hydrogen atoms in the benzene ring have been substituted" is well known, as disclosed in the claims (specifically, claim 12) of document 1 (JP 2003-001600 A1); therefore, the feature in question cannot be considered to be a technical feature which defines a contribution over the prior art (herein, claims 1 to 4 of the present application lack novelty in the light of the document in question).

Consequently, claims 5, 11, 16, 20 and 21 cannot be said to have a special technical feature in common; therefore, these groups of inventions cannot be considered to be so linked as to form a single general inventive concept.

In other words, the inventions that are set forth in claims 5 to 10 involve the special technical feature of obtaining fibrous fullerene crystals by using a benzene derivative in which the meta positions

Form PCT/ISA/237 (Supplemental Box) (April 2005)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITYInternational application No.  
PCT/JP 2004/00087

## Supplemental Box

have been substituted or the like as the first solution. Meanwhile, the inventions that are set forth in claims 11 to 15 and 23 involve the special technical feature of obtaining flake-like fullerene crystals by using a benzene derivative in which the ortho positions have been substituted or the like as the first solution; the inventions that are set forth in claims 16 to 19 and 24 involve the special technical feature of obtaining particulate fullerene crystals by using a benzene derivative in which the para positions have been substituted or the like as the first solution; the invention that is set forth in claim 20 involves the special technical feature of carrying out at least one process selected from among a group of processes including a pressurization process, a thermal process and a laser irradiation process; and the invention that is set forth in claim 21 involves the special technical feature of using fullerene which contains elements other than carbon on the interior.